

Town of Fairhaven Solar Projects

Solect Energy SMART PPA

August 23, 2019



Agenda

- The PowerOptions and Solect Small Solar Program
- The Massachusetts SMART incentive program
- Project summaries
- Questions and next steps



What is PowerOptions?

PowerOptions is a nonprofit energy buying consortium that delivers cost savings and predictability to nonprofits and the public sector in Massachusetts, Connecticut and Rhode Island. Our mission is to save our members time and money on energy so more resources can be directed toward their own important missions. With more than 400 members, our collective strength yields optimal pricing and stability for organizations both large and small.

Strength in Numbers

- A nonprofit serving other nonprofits for 20 years
- More than 400 Members
 - All Massachusetts, Connecticut and Rhode Island nonprofits and public entities are eligible
- \$200 million annual sales of energy supply
 - 1 billion kwh of electricity / 200 MW demand
 - 11 million dekatherms of gas
 - 65 MWs of solar projects under contract
- PowerOptions 10 RFPs for electric, gas and solar since 1998
 - Totaling more than \$2 billion in energy commodity sales
- Full-time staff of 10 focused on our members' needs
 - Experts on utilities, renewables, efficiency, competitive supply
 - Strong stable of consultants

Consortium Member Profile

Our members include some of the most prestigious institutions in New England, from large hospitals, museums and universities to small social service agencies and houses of worship.

- Colleges and universities
- 35 Private K-12 schools
- Municipal Entities
- Hospitals
- Housing Authorities
- Cultural Institutions
- Social Service Agencies
- YMCAs
- Churches
- Senior Housing/Elder Care

“PowerOptions takes the guess work out of energy procurement. Always the lowest price when I shop the numbers, and the contract language is clear.”

– James E. Benoit, CEM, Milton Academy

Solar RFP Process for onsite PPAs

- Select awarded RFP for onsite solar PPAs up to 300kW
- RFP process - diligent, thorough, competitive, compliant
 - Standard form PPA with attractive Terms and Conditions
 - Cost and Price structure that yields low rates
- To date:
 - 65 projects
 - Municipal, Schools, State Agencies, Not for Profits

Solect Energy



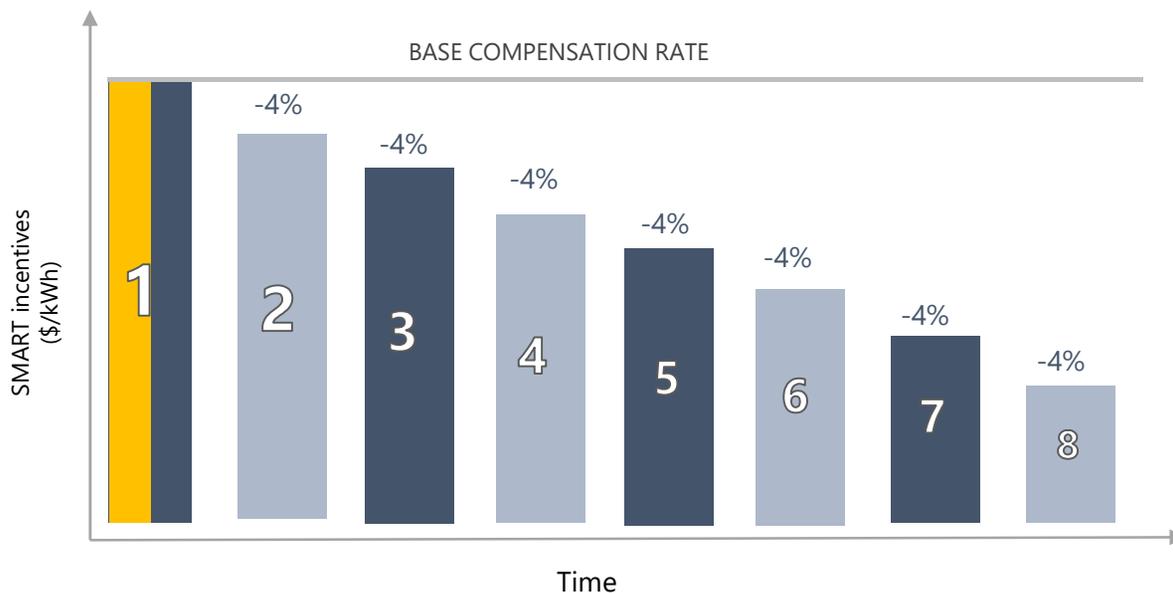
- Founded in 2009, Headquarters in Hopkinton, MA
- Develop, Finance, Design, Build, Operate, Service in MA, RI, CT
- 70 MA employees
- Over 100 MW / 450 projects, manage 600 projects in MA, RI, CT
- Turnkey PPAs with Public and Not for Profit clients
- Local engineer, build, service
- www.Solect.com

The PowerOptions Solect Solar Program

- No upfront cost
- Solect to install, finance, operate, maintain system
 - No maintenance responsibilities for client
- 20-Year Power Purchase Agreements (PPAs)
- Fixed per-kWh price for 20 years
 - Monetizes federal and state incentives
 - Savings plus hedge against volatile electricity and utility costs
 - Pricing pre-negotiated with strength of PowerOptions consortium
- Pre-negotiated standard form contract terms and conditions
- PowerOptions as advisor, advocate, facilitator
- Public entities may participate without conducting individual procurement (MGL Ch. 164, Sec. 137)

Solar Massachusetts Renewable Target (“SMART”) Program

- Fixed \$/kWh incentive payment to system owner over 20 years
- 8 “blocks” of capacity - incentives decline as blocks fill up
- Incentive rate directly proportional to PPA rate
- Adders for project-specific characteristics (Public, Rooftop...)



Note: Federal Tax Credit value declines in 2020; lower tax credit values yield higher PPA rates

Project 1 – LeRoy L. Wood Elementary School – 294kW



Project 1 – LeRoy L. Wood Elementary School

Solar PPA Summary

System Size (Capacity)	294.9 kW DC
Annual Output (Year 1)	345,000 kWh
Percent of Usage	89%
Current Electric Rate	\$0.145 per kWh (includes supply, transmission and distribution, and excludes non-kWh charges)
PPA Rate	\$0.050 per kWh
Escalator	0.0%
Term	20 years
Savings per kWh (Year 1)	66%
Year 1 Forecast Savings	\$32,700
Annual Avoided CO ₂	534,000 lbs
Contract Term Savings	\$941,000
Contract Term CO ₂ Avoided	5,100 tons

Assumptions

Rates assume PILOT of \$12.00 per kW
 Rates do not include costs, if any, from utility for impact studies or system upgrade charges
 Assumes SMART block 3
 Open shop labor (3rd party owned)
 2019 Installation
 Assumes cost of grid delivered kWh (supply and delivery charges) increase 3% per year

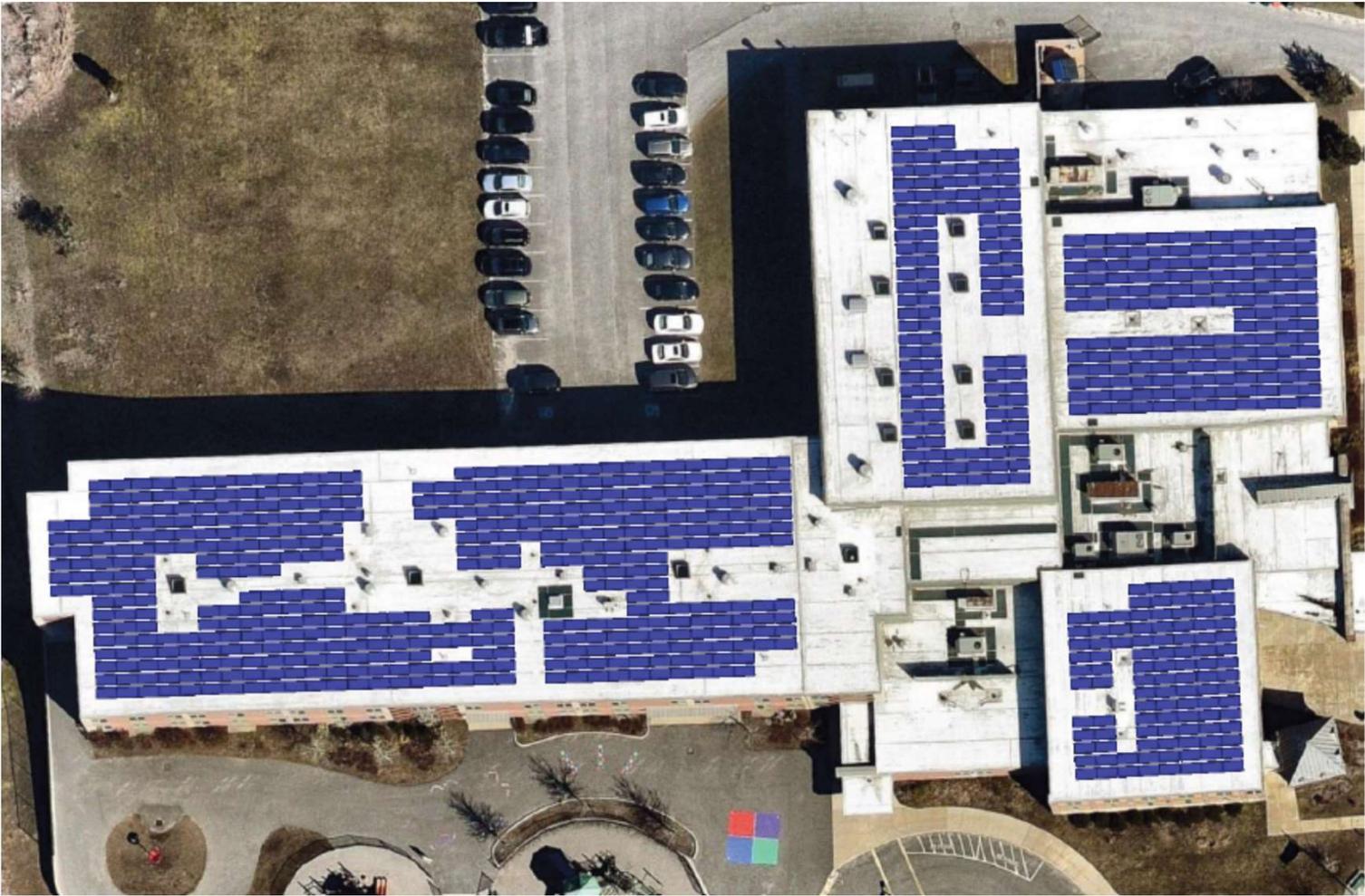
Solar PPA Summary

System Size (Capacity)	294.9 kW DC
Annual Output (Year 1)	345,000 kWh
Percent of Usage	89%
Current Electric Rate	\$0.145 per kWh (includes supply, transmission and distribution, and excludes non-kWh charges)
PPA Rate	\$0.060 per kWh
Escalator	0.0%
Term	20 years
Savings per kWh (Year 1)	59%
Year 1 Forecast Savings	\$29,300
Annual Avoided CO ₂	534,000 lbs
Contract Term Savings	\$875,000
Contract Term CO ₂ Avoided	5,100 tons

Assumptions

Rates assume PILOT of \$12.00 per kW
 Rates do not include costs, if any, from utility for impact studies or system upgrade charge
 Assumes SMART block 3
 Open shop labor (3rd party owned)
 2020 Installation
 Assumes cost of grid delivered kWh (supply and delivery charges) increase 3% per year

Project 2 – East Fairhaven Elementary School 297kW



Project 2 – East Fairhaven Elementary School

Solar PPA Summary

System Size (Capacity)	297.1 kW DC
Annual Output (Year 1)	347,000 kWh
Percent of Usage	93%
Current Electric Rate	\$0.166 per kWh (includes supply, transmission and distribution, and excludes non-kWh charges)
PPA Rate	\$0.090 per kWh
Escalator	0.0%
Term	20 years
Savings per kWh (Year 1)	46%
Year 1 Forecast Savings	\$26,300
Annual Avoided CO ₂	538,000 lbs
Contract Term Savings	\$867,000
Contract Term CO ₂ Avoided	5,100 tons

Assumptions

Rates assume PILOT of \$12.00 per kW	
Rates do not include costs, if any, from utility for impact studies or system upgrade charges	
Assumes SMART block 3	
Open shop labor (3rd party owned)	
2019 Installation	
Assumes cost of grid delivered kWh (supply and delivery charges) increase 3% per year	

Solar PPA Summary

System Size (Capacity)	297.1 kW DC
Annual Output (Year 1)	347,000 kWh
Percent of Usage	93%
Current Electric Rate	\$0.166 per kWh (includes supply, transmission and distribution, and excludes non-kWh charges)
PPA Rate	\$0.10 per kWh
Escalator	0.0%
Term	20 years
Savings per kWh (Year 1)	40%
Year 1 Forecast Savings	\$22,800
Annual Avoided CO ₂	538,000 lbs
Contract Term Savings	\$801,000
Contract Term CO ₂ Avoided	5,100 tons

Assumptions

Rates assume PILOT of \$12.00 per kW	
Rates do not include costs, if any, from utility for impact studies or system upgrade charge	
Assumes SMART block 3	
Open shop labor (3rd party owned)	
2020 Installation	
Assumes cost of grid delivered kWh (supply and delivery charges) increase 3% per year	

Proposal for Town of Fairhaven

SIGN ROOFTOP PPAs

- Low fixed rates with no capital; SMART Block, Federal Tax Incentives

ROOFTOP SOLAR PROJECT SCHEDULE

- Confirm detailed designs, Contract Process (PPA, Lease, PILOT),
- Electric engineering, Utility applications, SMART incentive applications
- Construction design, building permit applications
- Pre-construction meetings and tight coordination with facility operations
- 4-6 weeks at each site, 1-2 weeks roof equipment, balance electricians
 - Experience with dozens of local schools and towns – Safety, CORI, Access

- 2019: PPAs, Lease, PILOT; Interconnection Applications; Secure SMART incentives;
- 2019 or 2020 installations

- Select local monitoring and management services – included in PPA rate
- Educational Programming – monitoring, curriculum support, events
- Marketing / Communications / PR
- PILOT payments to Host community are in addition to the PPA Savings

References

- Solect has performed solar installations, financing, and management for dozens of public entities in Massachusetts. Customers are available to speak with you!
- Hopkinton, Grafton, Sherborn, Fitchburg, Lunenburg, Winchester, Haverhill...
- Regional School Districts – North Middlesex, Manchester Essex, Wachusett, Somerset Berkley, Upper Cape Tech, Southeastern Tech...
- Locally – Fairhaven Housing Authority
- Material available for review:
- Fitchburg Public Schools – 2 similar projects, STEM engagement
 - <https://www.youtube.com/watch?v=BmjkO4XrxI&list=PL0YmIWjCGI00Xt-5RVd1cMjcBXoK90-9z>
- Solect for municipalities and schools
 - <https://solect.com/municipalities-and-solar/>

Discussion, Questions, Next Steps

Thank you!

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